

Listing of the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-6. (Cancelled).

7. (Currently Amended) An interface apparatus for interfacing a telephony appliance to a telephone switching system, the interface apparatus comprising:

- a. a signal path through the apparatus for communicating signals between the telephony appliance and the telephone switching system;
- b. means for identifying a first communication protocol utilized by the telephony appliance from among a plurality of communication protocols and for configuring the signal path according to the first communication protocol, wherein configuring the signal path includes dynamically programming a **first** control circuit within the signal path according to the identified first communication protocol; and
- c. means for identifying a second communication protocol utilized by the telephone switching system from among the plurality of communication protocols and for configuring the signal path according to the second communication protocol, wherein configuring the signal path according to the second communication protocol includes programming the control circuit according to conversion parameters associated with the identified second communication protocol, further wherein the first communication protocol and the second communication protocol must first be identified before the telephony appliance and the telephone switching system begin communicating with one another.

8. (Original) The interface device according to claim 7 wherein the signal path includes a converter for converting the digital samples into an analog signal.

1       9.       (Original) The interface device according to claim 7 wherein the signal path is utilized  
2       for communicating voice and control signals between the telephony appliance and the telephone  
3       switching system.

1       10.      (Original) The interface device according to claim 9 comprising a circuit for detecting an  
2       on-hook/off-hook condition of the telephony appliance and for providing a notification to the  
3       telephone switching system in response to a change in the on-hook/off-hook condition of the  
4       telephony appliance.

1       11.      (Currently Amended) A method of interfacing a telephony appliance to a telephone  
2       switching system, the method comprising steps of:

- 3           a.       providing a signal path for communicating signals between the telephony  
4           appliance and the telephone switching system;
- 5           b.       identifying a first communication protocol utilized by the telephony appliance  
6           from among a plurality of communication protocols;
- 7           c.       identifying a second communication protocol utilized by the telephone switching  
8           system from among the plurality of communication protocols, wherein the first  
9           communication protocol and the second communication protocol must first be  
10          identified before the telephony appliance and the telephone switching system  
11          begin communicating with one another; and
- 12          d.       configuring the signal path according to the protocol utilized by the telephony  
13          appliance and according to the protocol utilized by the telephone switching  
14          system, wherein configuring the signal path includes dynamically programming a  
15          first control circuit within the signal path according to the identified first  
16          communication protocol and according to conversion parameters associated with  
17          the identified second communication protocol.

1       12.     (Original) The method according to claim 11 wherein the signal path includes a  
2       converter for converting digital voice samples into an analog signal.

1       13.     (Original) The method according to claim 11 wherein the signal path is utilized for  
2       communicating voice and control signals between the telephony appliance and the telephone  
3       switching system.

1       14.     (Original) The method according to claim 13 further comprising a step of detecting an  
2       on-hook/off-hook condition of the telephony appliance.

1       15.     (Original) The method according to claim 14 further comprising a step of providing an  
2       indication of the on-hook/off-hook condition of the telephony appliance to the telephone  
3       switching system via the signal path in response to the telephony appliance changing from an on-  
4       hook condition to an off-hook condition.

1       16.     (Original) The method according to claim 14 further comprising a step of providing an  
2       indication of the on-hook/off-hook condition of the telephony appliance to the telephone  
3       switching system via the signal path in response to the telephony appliance changing from an off-  
4       hook condition to an on-hook condition.

1       17.     (Currently Amended) A method of interfacing a telephony appliance to a telephone  
2       switching system, the method comprising steps of:  
3             a.       determining whether the telephone switching system communicates voice signals  
4                       as digital samples or as analog signals;  
5             b.       determining whether the telephony appliance communicates voice signals as  
6                       digital samples or as analog signals;

- 7 c. activating a first signal path when the telephone system communicates voice  
8 signals as digital samples, the first signal path for communicating the voice  
9 signals between the telephony appliance and the telephone switching system  
10 wherein the first signal path includes a converter for converting the digital  
11 samples into an analog signal;
- 12 d. activating a second signal path when the telephone system communicates voice  
13 signals in analog format, the second signal path for communicating the voice  
14 signals between the telephony appliance and the telephone switching system  
15 wherein the second signal path includes analog signal processing circuits;
- 16 e. identifying a first communication protocol utilized by the telephone switching  
17 system, wherein the identified first communication protocol is includes associated  
18 conversion parameters which are used to dynamically program a first control  
19 circuit within the first signal path or a second control circuit within the second  
20 signal path such that the programmed first control circuit or the programmed  
21 second control circuit translates the voice signals passed between the telephone  
22 switching system and the telephony appliance; and
- 23 f. identifying a second communication protocol utilized by the telephony appliance,  
24 wherein the first communication protocol and the second communication protocol  
25 must first be identified before the telephony appliance and the telephone switching  
26 system begin communicating with one another.

1 18. (Original) The method according to claim 17 further comprising a step of adapting an  
2 active one of the first and second signal paths according to requirements of the telephone  
3 switching system.

1 19. (Original) The method according to claim 17 further comprising a step of adapting the  
2 second signal path according to requirements of the telephone switching system wherein the step

3 of adapting comprises a step of adjusting an amplification level according to a level of a dial tone  
4 provided by the telephone switching system.

1 20. (Previously Presented) The method according to claim 17 wherein the step of  
2 determining whether the telephone switching system communicates voice signals includes a step  
3 of measuring a first voltage supplied by the telephone switching system to a resistive load.

1 21. (Previously Presented) The method according to claim 20 wherein the step of  
2 determining whether the telephone switching system communicates voice signals further  
3 comprises a step of measuring a second voltage supplied by the telephone switching system  
4 under unloaded conditions.

1 22. (Previously Presented) The method according to claim 21 wherein the step of  
2 determining whether the telephone switching system communicates voice signals further  
3 comprises a step of comparing a ratio of the first and second voltages to a range of expected  
4 ratios.

1 23. (Cancelled).

1 24. (Previously Presented) The method according to claim 17 further comprising a step of  
2 detecting an on-hook/off-hook condition of the telephony appliance.

1 25. (Original) The method according to claim 24 further comprising a step of providing an  
2 indication of the on-hook/off-hook condition of the telephony appliance to the telephone  
3 switching system in accordance with the identified protocol in response to the telephony  
4 appliance changing from an on-hook condition to an off-hook condition.

1     26.     (Original) The method according to claim 24 further comprising a step of providing an  
2     indication of the on-hook/off-hook condition of the telephony appliance to the telephone  
3     switching system in accordance with the identified protocol in response to the telephony  
4     appliance changing from an off-hook condition to an on-hook condition.

1     27.     (Currently Amended) A method of interfacing a telephony appliance to a telephone  
2     switching system, the method comprising steps of:

- 3           a.     determining a first communication protocol of the telephone switching system;
- 4           b.     determining a second communication protocol of the telephony appliance,  
5                 wherein the first communication protocol and the second communication protocol  
6                 must first be identified before the telephony appliance and the telephone switching  
7                 system begin communicating with one another;
- 8           c.     dynamically programming a control circuit according to conversion parameters  
9                 associated with the determined first communication protocol; and
- 10          d.     translating a communication according to the first communication protocol of the  
11                 telephone switching system using the programmed control circuit and further  
12                 according to the second communication protocol of the telephony appliance.